

Applicants: Mark Ledeboer et al.  
Application No.: 10/616,560

### REMARKS

#### The Amendment to the Specification

Applicants have amended paragraph [00176] on pages 101-102 to include a sequence identifier for the EGF receptor peptide sequence disclosed therein.

#### The Claim Amendments

Applicants have canceled claims 5-8, 15-17, 21-22 and 24-35. Applicants have amended claims 1, 2 and 12 to replace the recitation of “derivative” with “salt”. Support may be found on page 77, paragraph [00121] of the specification. Applicants have also amended claim 1 to recite that  $R^1$  is  $-T_{(n)}-Ar^1$ . Applicants have also amended claim 1 to recite that  $Ar^2$  can be a “partially saturated” monocyclic or bicyclic ring. Support for this amendment may be found on page 15, lines 1-5 of the specification. Applicants have further amended claim 1 to delete the optional replacements for variables G and Q. Support may be found throughout the specification. See, e.g., page 26, paragraphs [0059] and [0062]. Applicants have further amended claim 1 to delete the recitation that W is N in the proviso.

Applicants have amended claim 18 to recite the compounds of Table 1. Support may be found on pages 30-38 of the specification. Applicants have amended claim 19 to correct its dependency. Applicants have amended claims 20, 23 and 36 to more precisely define the claimed subject matter. Support may be found in originally-filed claims 20, 23, 35 and 36. Applicants have further amended claim 36 to correct its dependency.

None of these amendments adds new matter. Their entry is requested.

Applicants reserve the right to pursue the canceled subject matter in this application or in future continuing or divisional applications.

#### The Response

##### *The Election/Restriction*

The Examiner states that claims 5-8 and 15-17 are withdrawn because they are drawn to a non-elected invention. The Examiner further states that all other definitions

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of variables other than those enumerated in the September 13, 2005 Office Action are withdrawn from consideration as being drawn to non-elected subject matter.

Applicants have canceled claims 5-8 and 15-17. Applicants believe that they have overcome the rejections under 35 U.S.C. §§102 and 103, applicants request that the Examiner examine the full scope of compounds as provided by amended claim 1.

*Sequence Listing Requirement*

The Examiner states that the application fails to comply with the requirements of 37 C.F.R. §§1.821-1.825 for the reasons set forth in the attached Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures (hereafter "Notice to Comply"). Applicants have provided concurrently herewith the an computer readable form and paper copy of a Sequence Listing and a statement in compliance with 37 C.F.R. §1.821(f) and (g) to comply with the Notice to Comply, thereby obviating this objection.

*Claim Objections*

The Examiner has objected to claim 21 as being improperly multiply dependent. Applicants have canceled claim 21, thereby obviating this objection.

*The Rejections Under 35 U.S.C. §112, First Paragraph*

The Examiner has rejected claims 1-4, 12-14, 18-20 and 22-37 under 35 U.S.C. §112, first paragraph, because the Examiner, while acknowledging that the specification enables compounds of formula I or pharmaceutically acceptable salts thereof, contends that the specification does not reasonably provide enablement for pharmaceutically acceptable derivatives of compounds of formula I.

Solely to expedite prosecution, applicants have amended the pending claims to recite compounds and pharmaceutically acceptable salts of compounds of formula I, thereby obviating this rejection.

The Examiner has rejected claims 22-36 under 35 U.S.C. §112, first paragraph, because the Examiner, while acknowledging that the specification enables a method of treatment of colon cancer, contends that the specification does not reasonably provide enablement for a method of treating or lessening the severity or prevention of other diseases or conditions recited in the claims.

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Solely to expedite prosecution, applicants have amended the pending claims to recite a method of treating colon cancer, thereby obviating this rejection.

*The Rejections Under 35 U.S.C. §112, Second Paragraph*

The Examiner has rejected claims 1-4, 12-14, 18-20 and 22-37 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants have amended the claims to obviate these rejections. Specifically:

(i) The Examiner states that in the definition of Ar<sup>2</sup> in claim 1, the term “saturated” is repeated. Applicants have amended claim 1 to correct this typographical error.

(ii) The Examiner contends that the recitation “W is nitrogen” in the proviso of claim 1 is redundant. Applicants have amended claim 1 to delete this recitation.

(iii) The Examiner alleges that claim 18 is indefinite because it recites a list of tables without providing the claimed compounds. Applicants have amended claim 18 to recite the compounds.

(iv) The Examiner states that claim 19 depends from some canceled claims. Applicants have amended claim 19 such that it does not depend from canceled claims.

*The Rejection under 35 U.S.C. §102(e)*

The Examiner has rejected claims 1-2, 19-20 and 22-37 as allegedly being anticipated by WO 03/076434 (hereafter “the ‘434 application”), which has an effective date of March 6, 2003. The Examiner states that the instant claims read on reference disclosed compounds and corresponding species in the ‘434 application. The Examiner contends that applicants’ provisional application 60/395,202 (hereafter “the ‘202 application”), which was filed July 9, 2002 and for which domestic priority is claimed, fails to provide adequate support for claims in the instant application because the ‘202 application does not support the definitions for variables G and Q. Applicants traverse in light of the amended claims.

Applicants have amended claim 1 such that variables G and Q are defined as they are in the ‘202 application. Thus, the instant claims are entitled to the priority date of

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July 9, 2002, which is prior to the effective date of the '434 application, thereby obviating the rejection under 35 U.S.C. §102(e).

*The Rejections Under 35 U.S.C. §103(a)*

The Examiner has rejected claims 1-4, 12-14, 18-20 and 22-37 under 35 U.S.C. §103(a) as allegedly being unpatentable over the '434 application. Applicants traverse in light of the amended claims.

As discussed above, applicants are entitled to the July 9, 2002 priority date of the '202 application, which is prior to the effective date of the '434 application, thereby obviating the rejection under 35 U.S.C. §103(a).

The Examiner has rejected claims 1-2, 19-20, 23-25 and 37 as being obvious over WO 02/083111 (hereafter "the '111 application"). The Examiner states that the '111 application teaches imidazolyl compounds that are structurally analogous to the instantly claimed compounds. The Examiner acknowledges that the instant compounds differ from the reference compounds by having the pyrimidine attached through a position different from the reference compounds, but contends that it would have been obvious to one having ordinary skill in the art at the time of the invention to prepare the instantly claimed compounds because they are positional isomers of the reference compounds. Further, the Examiner alleges that one having ordinary skill in the art would have been motivated to prepare the instantly claimed compounds because such isomeric compounds would be expected to share similar properties and to have the same use as taught for the reference compounds, i.e., as pharmaceutical agents. Applicants traverse.

As acknowledged by the Examiner, the '111 application does not teach the claimed compounds. As further acknowledged by the Examiner, "isomeric compounds . . . would be expected to share similar properties." However, in this case, the '111 application only contends that the compounds could be used as large conductance calcium-activated potassium channel openers (see, e.g., page 1, lines 8-11), which is a clearly different and distinct property than those properties disclosed in the instant application, i.e., that the compounds are useful as protein kinase inhibitors. Further, the '111 application never teaches or suggests that the compounds would be useful as protein kinase inhibitors or useful for treating, *inter alia*, cancer, but alleges only that the

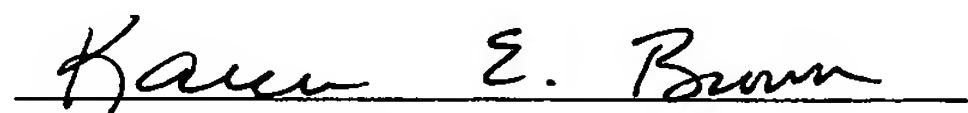
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compounds could be used for treating disorders such as pollakiuria, urinary incontinence, cerebral infarction and subarachnoid hemorrhage (see, e.g., page 1, lines 11-13). Thus, contrary to the Examiner's assertion, one having ordinary skill in the art would not have been motivated to make the instantly-claimed compounds based on the teachings of the '111 application because the instantly-claimed compounds have different molecular targets, different mechanisms of action and different medical applications than that which is disclosed in the '111 application. Further, one having ordinary skill in the art would have had no expectation of success that making "isomeric compounds" of the '111 application would result in protein kinase inhibitors useful in treating cancer given that the '111 application is concerned only with calcium-activated potassium channel openers. For these reasons, applicants request that the Examiner withdraw his rejection of the pending claims under 35 U.S.C. §103(a) as being obvious over the '111 application.

#### Conclusion

Applicants request that the Examiner enter the above amendments, consider the accompanying arguments, and allow the claims to pass to issue. Should the Examiner deem expedient a telephone discussion to further the prosecution of the above application, applicants request that the Examiner contact the undersigned at his convenience.

Respectfully submitted,



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